

"PATENT"

**AMENDMENT TRANSMITTAL FORM**RECEIVED  
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OFFICIAL

In re application of: Stephen M. Davis et al  
 U. S. Serial No.: 09/818,439 [400100]  
 Filed: March 27, 2001  
 For: PRODUCTION OF DIESEL FUEL FROM  
 BITUMEN

) Before the Examiner  
 ) James Arnold, Jr.  
 )  
 ) Confirmation Number: 2056  
 ) Group Art Unit: 1764  
 ) Family Number: P2001J016

Commissioner for Patents  
 P.O. Box 1450  
 Alexandria, Virginia 22313-1450

**CERTIFICATION OF FACSIMILE TRANSMISSION**

I hereby certify that this paper is being facsimile transmitted to the  
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KATHLEEN A. KUNAKathleen A. KunaJANUARY 8, 2004

Type or print name of person signing certification

Signature

Date

Transmittal herewith is an amendment/response in the above-identified application.

Petition for extension of time pursuant to 37 CFR 1.136 and 1.137 is hereby made, if and to the extent, required. The fee for this extension of time is calculated to be \$\_\_\_\_\_ to extend the time for filing this response until \_\_\_\_\_.

The fee for any changes in number of claims has been calculated as shown below.

CLAIMS AS AMENDED						
(1)	(2) Claims Remaining After Amendment	(3)	(4) Highest Number Previously Paid For	(5) Present Extra	(6) Rate	(7)
Total Claims	*	Minus	**		x 18.00	
Indep. Claims	*	Minus	***		x 86.00	
MULTIPLE DEPENDENT CLAIM FEE					\$290.00	
FEE FOR CLAIM CHANGES						

\* If the entry in Column 2 is less than the entry in Column 4, write "0" in Column 5.

\*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, write "20" in this space.

\*\*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, write "3" in this space.

The total fee for this REPLY BRIEF and TERMINAL DISCLAIMER, including claim changes and any extension of time is calculated to be \$ 0.

☒ Charge \$ 0 to Deposit Account No. 05-1330.

☒ The Commissioner is hereby authorized to charge any additional fees under 37 CFR 1.16 and 1.17 which may be required by this paper, or credit any overpayment, to Deposit Account No. 05-1330. A duplicate copy of this Form is enclosed.

DATE OF SIGNATURE

Post Office Address: [to which correspondence is to be sent]  
 ExxonMobil Research and Engineering Company  
 P. O. Box 900  
 Annandale, New Jersey 08801-0900



27810

PATENT TRADEMARK OFFICE

MDM:kak

M. Marin

ATTORNEY OR AGENT OF RECORD

MARK D. MARIN

Registration No. 50,842

☒ Pursuant to 37 CFR 1.34(a)

Facsimile Number: (908) 730-3649

1/7/2004

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KATHLEEN A. KUNA Kathleen A. Kuna January 8, 2004  
 Type or print name of person signing certification Signature Date

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 \*\*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, write "3" in this space.

The total fee for this **TERMINAL DISCLAIMER TO OBVIATE A DOUBLE PATENTING REJECTION OVER A PRIOR PATENT**, including claim changes and any extension of time is calculated to be \$ 110.00.

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DATE OF SIGNATURE 1/7/04

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 ATTORNEY OR AGENT OF RECORD

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NO. 5952 — P. 2

JAN 08 2004

**OFFICIAL**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE** **PATENT**

In the Application of: Ferm et al

CASE NO. FO8029 (CNT)

SERIAL NO.: 09/846,697

GROUP ART UNIT: 1756

FILED: May 1, 2001

EXAMINER: J.A. McPherson

FOR: Polymer Waveguide Fabrication Process Confirmation No: 2899

**RESPONSE**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

This is in response to the Office Action dated October 9, 2003.

**REMARKS**

Claims 1-10 and 12-33 are in the case. Claims 1-10 and 12-33 stand rejected. The Examiner has continued to reject the instant application as anticipated under 35 USC 102. Applicants respectfully traverse the Examiner's rejection.

Applicant presents the present paragraph as a correction to the previous response. Applicant was mistaken in stating that Example G of Xu does not state whether or not the photomask employed was in contact with the photosensitive surface. It is stated on Col 33 lines 27-32 of Xu that the photomask was in contact with the photosensitive composition. However, Applicant's claims are limited only to non-contact processes.

Applicant does not disagree that Xu makes mention of imaging processes in which the photomask is not in contact with the imageable surface, and that Xu makes mention of the use of a buffer layer, when necessary. However, as the Examiner is aware, mere mention of an element of a subsequently claimed invention by another does not in itself rise to the level of anticipation. In order for Xu to serve as prior art for the instant application, Xu must also provide sufficient description and enablement to enable one of skill in the art to arrive at the instant invention using ordinary methods. Applicant respectfully asserts that Xu provides no such enablement.

The Examiner will note that Xu, having stated that the photomask exposure "may include contact, proximity, and projection techniques" provides no further description of the method of application of the proximity method versus the contact method. Indeed, one of skill in the art in possession of Xu could not conclude anything but that the various methods are fully equivalent.

That this is not the case is clear from the instant application. For example, on pages 2 and 3 of the instant application is presented a discussion of the various requisites for handling photopolymerizable materials in the fabrication of waveguides, particularly the acrylates preferred in the instant application. It is stated that oxygen concentration must be carefully controlled, and that, furthermore the viscosity of the photopolymerizable material is low and the film thereof easily disturbed. For these reasons, it is stated on page 3 lines 3-4 "the use of a direct contact UV transparent cover cannot be readily employed."

Furthermore, unlike Xu, the instant application teaches the method by which the non-contact photomask is properly employed to obtain the desired result. The teachings on Page 7 of the instant invention make clear the importance of thoroughly deoxygenating the materials therein employed. As has already been stated, the use of a contact photomask can interfere with proper deoxygenation. On Page 7 line 21 – Page 8 line 1 of the instant application – it is described how the photomask is held 500 micrometers or more away from the surface during deoxygenation, and then is lowered to no more than 20 micrometers, preferably more than 5 micrometers from the surface for exposure. No where in Xu is there any teaching whatever in this regard. One in possession of Xu would need to experiment with photomask to surface distance in order to arrive at the proper working distance.

Thus Xu does not enable anything except contact photomask exposure with all its concomitant problems. Xu cannot be considered as prior art for non-contact photomask because of the absence of critical teaching.

In like manner, Xu merely mentions the use of a buffer layer whereas the instant invention is limited thereto. Xu provides absolutely no teaching in regard to how to select the buffer material nor how to prepare the buffer material. In contrast, the instant invention provides a detailed discussion on Page 10 line 14

– Page 12 line 21 of the buffer layer, its function, and how to select the material and fabricate the layer. Thus on Page 11 line 17 of the instant invention it is stated "The difference between the index of the core and the buffer is desired to be greater than about 1.5 times  $\Delta n$ ..." where  $\Delta n$  is the difference between the refractive indices of the core and cladding. Xu provides no such instructions.

On Page 11 line 25 – Page 12 line 2 is provided detailed teaching regarding buffer layer thickness. Then is followed detailed teaching about buffer layer curing. None of these teachings are provided in Xu. Thus, in regard to the buffer layer, Xu provides insufficient teaching to enable one of skill in the art to arrive at the instant invention by ordinary methods. Xu cannot be considered prior art for a buffer layer because of the absence of the critical teaching.

#### CONCLUSION

In light of the above arguments, Applicant respectfully asserts that Xu is not suitable as prior art for the instant invention because of a failure to meet the requirements of 35 U.S.C. §112 in regard to two limitations in the instant claims, namely the use of non-contact photomask and the use of a buffer layer. One of ordinary skill in the art would need to employ greater than ordinary methods to arrive at the instant invention, and would not by virtue of Xu be placed in possession of the instant invention. Xu cannot be said to have been in possession of the instant invention absent the critical teaching provided in the instant invention. Therefore the claims in the instant invention stand as patentably novel over the cited art. Allowance of Claims 1-10 and 12-33 is respectfully solicited.

Respectfully submitted,

*Barbara C. Siegel* 1/7/04  
Barbara C. Siegel  
Attorney for Applicants  
Reg. No. 30,684  
(302) 992-4931  
Fax: (302) 992-5374